

List of images in machine:

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.19042.964]
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C:\WINDOWS\system32>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
C:\WINDOWS\system32>
```

Image search

```
Administrator: Command Prompt
C:\WINDOWS\system32>docker search ubuntu
NAME                                DESCRIPTION                                STARS     OFFICIAL
ubuntu                              Ubuntu is a Debian-based Linux operating sys... 12229     [OK]
dorowu/ubuntu-desktop-lxde-vnc      Docker image to provide HTML5 VNC interface ... 528
websphere-liberty                   WebSphere Liberty multi-architecture images ... 270       [OK]
rastasheep/ubuntu-sshd              Dockerized SSH service, built on top of offi... 251
consol/ubuntu-xfce-vnc              Ubuntu container with "headless" VNC session... 240
ubuntu-upstart                      Upstart is an event-based replacement for th... 110       [OK]
ansible/ubuntu14.04-ansible         Ubuntu 14.04 LTS with ansible                98
landinternet/ubuntu-16-nginx-php-phpmysql-5  ubuntu-16-nginx-php-phpmyadmin-mysql-5      50
open-liberty                        Open Liberty multi-architecture images based... 45        [OK]
ubuntu-debootstrap                  debootstrap --variant=minbase --components=m... 44        [OK]
i386/ubuntu                         Ubuntu is a Debian-based Linux operating sys... 25
solita/ubuntu-systemd               Ubuntu + systemd                             24
nuagebec/ubuntu                     Simple always updated Ubuntu docker images w... 24
landinternet/ubuntu-16-apache-php-5.6  ubuntu-16-apache-php-5.6                     14
```

Pulling an image of Ubuntu 16.04 and Ubuntu 16.10

```
Administrator: Command Prompt
C:\WINDOWS\system32>docker pull ubuntu:16.04
16.04: Pulling from library/ubuntu
92473f7ef455: Pull complete
fb52bde70123: Pull complete
64788f86be3f: Pull complete
33f6d5f2e001: Pull complete
Digest: sha256:eed7e1076bbc1f342c4474c718e5438af4784f59a4e88ad687dbb98483b59ee4
Status: Downloaded newer image for ubuntu:16.04
docker.io/library/ubuntu:16.04

C:\WINDOWS\system32>docker pull ubuntu:16.10
16.10: Pulling from library/ubuntu
dca7be20e546: Pull complete
40bca54f5968: Pull complete
61464f23390e: Pull complete
d99f0bcd5dc8: Pull complete
120db6f90955: Pull complete
Digest: sha256:8dc9652808dc091400d7d5983949043a9f9c7132b15c14814275d25f94bca18a
Status: Downloaded newer image for ubuntu:16.10
docker.io/library/ubuntu:16.10

C:\WINDOWS\system32>
```

Remove Ubuntu 16.10 image and an updated list of the images in the machine

```
Administrator: Command Prompt
C:\WINDOWS\system32>docker rmi ubuntu:16.10
Untagged: ubuntu:16.10
Untagged: ubuntu@sha256:8dc9652808dc091400d7d5983949043a9f9c7132b15c14814275d25f94bca18a
Deleted: sha256:7d3f705d307c7c225398e04d4c4f8512f64eb8a65959a1fb4514dfde18a047e7
Deleted: sha256:d9db289b9342d9617596cd6ee3bba988629e24d9afa5db4e4b0e4e491c65007d
Deleted: sha256:a87725e8597b97f2399bc3aa50b0e2eec903b8ce19055668d3befb012918205c
Deleted: sha256:38cf10a2801529348366953e9b933d3524360dedc91d3e4d5d7f941da0c973c9
Deleted: sha256:61172966249d43026dbd017eec3a9575e37bddf8a269a9f09ecb559d7bfe7fef
Deleted: sha256:57145c01eb80040fdd0a24cde20af4788605b49593188d4f7efab099af89a08e

C:\WINDOWS\system32>docker images
REPOSITORY      TAG         IMAGE ID      CREATED        SIZE
ubuntu          16.04      aefd7f02ae24  2 weeks ago   134MB

C:\WINDOWS\system32>
```

Running a “Hello World” application using a container from the Ubuntu 16.04 image (not sure if I used the terms correctly)

```
Administrator: Command Prompt

C:\WINDOWS\system32>docker run ubuntu:16.04 /bin/echo 'Hello world!'
'Hello world!'

C:\WINDOWS\system32>docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
C:\WINDOWS\system32>docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
16408fd48f1b   ubuntu:16.04  "/bin/echo 'Hello wo..."  29 seconds ago   Exited (0) 25 seconds ago   distracted
_wozniak

C:\WINDOWS\system32>
```

Running a bash session in the container

```
Administrator: Command Prompt

C:\WINDOWS\system32>docker run ubuntu:16.04 /bin/bash

C:\WINDOWS\system32>docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
70f116ccd58a   ubuntu:16.04  "/bin/bash"  22 seconds ago   Exited (0) 17 seconds ago   distracted
_boyd
16408fd48f1b   ubuntu:16.04  "/bin/echo 'Hello wo..."  3 minutes ago   Exited (0) 3 minutes ago   distracted
_wozniak

C:\WINDOWS\system32>docker run -it ubuntu:16.04 /bin/bash
root@5cc59ea2558a:/# pwd
/
root@5cc59ea2558a:/# ls
bin boot dev etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@5cc59ea2558a:/# exit
exit

C:\WINDOWS\system32>
```

Running an application in detached mode

```
Administrator: Command Prompt

C:\WINDOWS\system32>docker run -d ubuntu:16.04 /bin/sleep 3600
be3173f11e54a9fc1587adcea3f92e4eb68d3287f74988b1b00fca4a18a310db

C:\WINDOWS\system32>docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS   NAMES
be3173f11e54   ubuntu:16.04   "/bin/sleep 3600"       12 seconds ago Up 9 seconds   adoring_bohr

C:\WINDOWS\system32>
```

Executing commands within an active container using exec

```
Administrator: Command Prompt

C:\WINDOWS\system32>docker exec -it be3 /bin/bash
root@be3173f11e54:/# ps aux
USER          PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.0  0.0   4372   668 ?        Ss   06:02   0:00 /bin/sleep 3600
root           7  0.0  0.0  18232  3312 pts/0    Ss   06:04   0:00 /bin/bash
root          17  0.0  0.0  34420  2728 pts/0    R+   06:05   0:00 ps aux
root@be3173f11e54:/# exit
exit

C:\WINDOWS\system32>docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS   NAMES
be3173f11e54   ubuntu:16.04   "/bin/sleep 3600"       3 minutes ago Up 3 minutes   adoring_bohr

C:\WINDOWS\system32>
```

Stopping a docker container

```
Select Administrator: Command Prompt

C:\WINDOWS\system32>docker stop be3
be3

C:\WINDOWS\system32>docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS              PORTS          NAMES
be3173f11e54   ubuntu:16.04   "/bin/sleep 3600"       6 minutes ago  Exited (137) 21 seconds ago          adoring_
bohr
5cc59ea2558a   ubuntu:16.04   "/bin/bash"             10 minutes ago  Exited (0) 9 minutes ago            fervent_
rubin
70f116ccd58a   ubuntu:16.04   "/bin/bash"             10 minutes ago  Exited (0) 10 minutes ago           distract
ed_boyd
16408fd48f1b   ubuntu:16.04   "/bin/echo 'Hello wo..." 13 minutes ago  Exited (0) 13 minutes ago           distract
ed_wozniak

C:\WINDOWS\system32>
```

Removing containers. I had to use PowerShell here due to an error encountered in CMD

```
Administrator: Command Prompt - powershell

C:\WINDOWS\system32>docker rm $(docker ps -a -q)
unknown shorthand flag: 'a' in -a
See 'docker rm --help'.

C:\WINDOWS\system32>powershell
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\WINDOWS\system32> docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS              PORTS          NAMES
be3173f11e54   ubuntu:16.04   "/bin/sleep 3600"       9 minutes ago  Exited (137) 3 minutes ago          adoring_b
ohr
5cc59ea2558a   ubuntu:16.04   "/bin/bash"             13 minutes ago  Exited (0) 12 minutes ago            fervent_r
ubin
70f116ccd58a   ubuntu:16.04   "/bin/bash"             14 minutes ago  Exited (0) 14 minutes ago           distracte
d_boyd
16408fd48f1b   ubuntu:16.04   "/bin/echo 'Hello wo..." 17 minutes ago  Exited (0) 17 minutes ago           distracte
d_wozniak
PS C:\WINDOWS\system32> docker rm $(docker ps -a -q)
be3173f11e54
5cc59ea2558a
70f116ccd58a
16408fd48f1b
PS C:\WINDOWS\system32> docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS          NAMES
PS C:\WINDOWS\system32>
```